

DECEMBER, 1961

50 CENTS

COUNTY AGENT VO-AG TEACHER

THE LEADING MAGAZINE FOR AGRICULTURAL LEADERS



**NATIONAL
VO-AG
TEACHERS
MEETING**

TEAMWORK IS CONTAGIOUS

THE SPECIALIST'S JOB

COLEMAN KLOE
University Micro Films
313 N. First St.
Ann Arbor, Michigan
COM

EVEN IF YOU WERE TWINS YOU COULDN'T COVER THE GROUND IN A DAY THAT **NEW** ^{FARM} interphone CAN COVER FOR YOU—IN MINUTES



He's talking with his wife in the house over the outdoor loudspeaker-microphone. No need to stop work.



Here's how you "broadcast" to locate another person. Think how long it would take without Interphone on the job.



Each Interphone station is an ever-alert "ear" to warn you of disturbances in, or around, the buildings.

- Suppose your wife takes an outside call in the house and wants to discuss it with you. She can "hold" the call, "broadcast" to find you, get your reply and then follow your instructions in completing the outside call. Or, if she can't handle it, you can pick up the nearest phone and take over the call.

- You can answer on-the-farm calls from the middle of the barn lot simply by speaking *toward* the outdoor loudspeaker. Talk as long as you like without taking a step. Do the same at an indoor Interphone station.

- You can pick up *any* Interphone handset and make or take regular outside calls.

- When there's no one at the house, the ring of your telephone can be "broadcast" over the outside speaker and other Interphone stations. Then you can take the call on the nearest phone.

- Pick up any phone on the place (the number of stations is geared to your farm) and "broadcast" to find another person, talk over a job, or give instructions. Others can locate you in the same way.

- After work, the monitor gives you an alert "ear" at every Interphone station. When you hear a disturbance you can often head off trouble before it gets out of hand.

If you'd like to know more about Farm Interphone and what it can do for you, just call your local Bell Telephone Manager—or ask your telephone man when he is in the neighborhood—or mail the coupon below. There's no obligation on your part, of course.

Mail this coupon to:

American Telephone and Telegraph Company
Farm Interphone Division, Room 513A, Dept. 5-A
195 Broadway, New York 7, New York

I would like complete information on Farm Interphone:

Name _____
Home Address _____
City _____ Zone _____ State _____
Telephone Number _____



BELL TELEPHONE SYSTEM

SULPHUR—a "must" for many plants and soils



Cotton Responds Well to Sulphur Applications

The photograph above shows cotton plants with and without the use of Sulphur in the fertilizer. Quite a difference, isn't there?

The chemist finds Sulphur associated with vegetable and fruit crops; also with all grains and grasses. Not much, to be sure, but everpresent. Analyze poorly developed plants, however, and, in many cases, you will find that their Sulphur content is very low.

Plants must have Sulphur! Many crops today are suffering from Sulphur deficiencies in the soil, which nature has little chance of making up. Even though the Sulphur content of most plants is small the need is vital. Sulphur should always be supplied as a means of insuring an adequate amount to meet plant needs.



TEXAS GULF SULPHUR COMPANY

75 East 45th Street, New York 17, N. Y.

811 Rusk Avenue, Houston 2, Texas

Sulphur Producing Units: Newgulf, Texas • Moss Bluff, Texas

Fannett, Texas • Spindletop, Texas

Worland, Wyoming • Okotoks, Alberta, Canada

Profit Pointer



**PILOT BRAND
OYSTER SHELL**
helps you get
more eggs with
stronger shells

There's no question about it. PILOT BRAND Oyster Shell helps you get maximum egg production ... helps you make more money with your flock. It's the ideal egg-shell material ... almost pure calcium carbonate. Low cost, too. It pays to keep PILOT BRAND in the hoppers the year 'round.

In the bag with the big blue Pilot Wheel—
at most good feed dealers.



Oyster Shell Products Company
Mobile, Alabama

FOR YOUR CONVENIENCE

COUNTY AGENT & VO-AG TEACHER is now being published by MEISTER PUBLISHING CO., Willoughby, Ohio. For prompt response, please address your correspondence, change of address or matters pertaining to your subscription to—

COUNTY AGENT & VO-AG TEACHER
Willoughby, Ohio

COUNTY AGENT VO-AG TEACHER

DECEMBER 1961

Vol. 17 No. 12

THE LEADING MAGAZINE FOR AGRICULTURAL LEADERS

FEATURES

- 8 Vo-Ags in Kansas City: *Program for NVATA portion of the AVA Convention.*
- 10 Teamwork is Contagious by *John B. Hodge*
How one group of educators co-operated to develop a bold, new teaching program.
- 12 How To Select Hand Tools by *W. Forrest Bear*
Here's a comprehensive report on what to look for when choosing small electric tools.
- 24 The Specialist by *John A. Schoenemann*
A keen look at the role of ag leaders as experts.

DEPARTMENTS

- 5 Ag Leaders Washington by *John Harms & George Peter*
- 6 Ag Leaders Speak Up
- 7 What's Coming Up
- 15 Late Research
- 16 Ag Leaders Audio Visuals by *George F. Johnson*
- 19 Vo-Ag News
- 21 Booklet-Bulletin Reviews
- 22 New Ideas and Products
- 26 In Summing Up by *Gordon L. Berg*

E. G. K. MEISTER, *Publisher*

GORDON L. BERG, *Editor*; R. T. MEISTER, *Editorial Director*

Associate Editor: DOROTHY KAPLE

Washington Editor: JOHN HARMS; *Farm Mechanics Editor*: HAROLD GULVIN

Audio-Visual Editor: GEO. F. JOHNSON; *Production Manager*: J. S. BENDER

EDWARD L. MEISTER, *Director of Advertising*

District Advertising Offices

CHICAGO: Al Zilenziger, 333 North Michigan Avenue. Phone STate 2-7128.

SAN FRANCISCO: E. S. Townsend, Townsend, Millsap & Co., 110 Sutter St. Phone SUtter 1-7971.

NEW YORK: John Boisseau, 41 East 42nd St., Phone TN 7-2688.

LOS ANGELES: M. E. Millsap, Townsend, Millsap & Co., 159 S. Vermont Ave. DUmkirk 3-1211.

COUNTY AGENT AND VO-AG TEACHER is published monthly by Meister Publishing Co., Willoughby, Ohio. E. G. K. Meister, Publisher and Chairman of the Board; Edward L. Meister, President; Richard T. Meister, General Manager; Gilbert Meister, Vice-President. Single current copies 50¢; copies over one year old \$1.00.

When changing your address, please send us old as well as new; send address label from your last copy; allow 6 weeks for the first copy to reach your new address.

Accepted as controlled circulation publication at Ashland, Ohio.

Member Business



Publication Audit



COUNTY AGENT AND VO-AG TEACHER



ag leaders washington

Latest word from the Capitol—by John Harms and George Peter

Your views wanted for the fight ahead in Congress

COUNTY AGENTS and vo-ag teachers are going to have the fight of their lives the coming session of Congress. They are going to have to get it over to an understandably unknowing public what they are doing that requires their listing in the United States budget as an expense of the taxpayer.

As the signs appear to be piling up now, you are going to be listed as "big spending" by farm program opponents. You will be included among appropriations for land grant experimental stations, meat inspection, hog cholera eradication, and numerous other USDA activities carried on mainly for the protection of the public. Strictly credit money for support loans will be thrown in just to make the bill look bigger.

American Farm Bureau Federation has made it plain to the White House that it is going to spend the major portion of its resources to fight the new farm policies of the Administration. The Bureau is registered in Congress as one of the biggest lobbying groups in the U.S.

Charles Shuman, president of the Farm Bureau, has already begun the drive against agricultural spending by charging that USDA appropriations are responsible for the deficit in the budget, although the cold facts, easily checked, show that the budget would have been even bigger without the new farm program.

A check of the new budget will show that USDA appropriations — not be confused with "spending" — is about \$7 billions. This is about 8% of the total budget of around \$89 billion. Most of this budget will never be returned to the taxpayers' cashbox. Most of the \$7 billions marked for agriculture will be returned to the U.S. Treasury as repayment for loans with interest.

WHAT DOES ALL THIS MEAN to county agents and vo-ag? It means that some attackers of government farm funds, at least, have decided they stand less chance of killing farm programs so long as you are in existence. We have checked, and Farm Bureau, the national office of the U. S. Chamber of Commerce, and the National Association of Manufacturers are

scheduled to lead the attack.

The big drive in this direction began in October when Secretary of Agriculture Freeman was abroad attempting to sell U.S. farm products, farm and food machinery businesses, and new methods in farming. Just what USDA has in store as a rebuttal against the new attacks on farm programs, some of it coming from inside the Administration itself we have yet to find out.

WHAT ARE VO-AGS? This is a related question we are hearing lately. County agents are relatively safe from government budget cuts at present, but even though the monies contributed toward vo-ag education are listed as Health, Education and Welfare appropriations, we are hearing that such funds are going to be attacked as agricultural spending.

Most important of all, new organizations are interesting themselves in vocational agricultural training — and they are telling us they intend to go after increases in government appropriations. This could lead to a reduction of vo-ag funds as they are now appropriated — or, worse still, an open battle between new groups and long-standing organizations.

WHERE DO WE GO FROM HERE? Most of the answer to this question is going to depend on you — both vo-ag teacher and county agent.

Government sources we have talked with tell us they find the going rough. They want to make changes — and for the better — but say they don't get enough ideas from the very people they are interested in most. We mean YOU.

The White House committee on vocational education — called "panel of consultants" — which we told you was coming some months ago, has been named. But even this is not quite enough. They are expected to come up with a report for Congress in 1963. The president of the NVATA, Floyd Johnson, is a committee member, which is important. But he is outnumbered 24 to 1.

Why wait until 1963 to start getting your ideas over to Congress? Your opponents are getting in their kicks now.

ag leaders speak up

FEE FOR AGENT HELP?

I am a bit tardy in writing to you. I was very pleased to meet you in New York even though our visit was very brief. I thought perhaps I would meet you again before the conference was over, but did not have that pleasure.

I want to congratulate you on the interest you have taken in our Farm and Home Management Association, and on the very fine article you published in your September issue of *COUNTY AGENT & VO-AG TEACHER*. I am wondering if you have a few extra copies of this magazine. We had several who have shown some interest and I thought this article would be as good as anything we could use.

It seems that this type of thing is slow to catch on in other areas. I can't figure out just why, unless it is breaking away from old extension tradition by having the members pay a fee to belong to the association. We have been happy with the association thus far... By using the long-time planning form, we feel it is a fine way of finding out just where the farmer is and where he wants to go. From that we have a background to work on for each individual farm situation.

Also, I think from the fact that the fieldman or agent in charge visits the families periodically, these particular farmers are more alert and tend to get things done so as to have something to show on each succeeding visit.

Again, I wish to thank you for the interest you have shown in our project.

CLETUS F. MURPHY
County Agricultural Agent
Waseca, Minn.

Glad to send you the magazines, Cletus. We think that any good program is worth paying for! EDITOR.

TIRED OF IT ALL!

I'll take a moment in between farm visits, news stories, office calls, 4-H leader training, Association meetings, planning for winter subject matter meetings to request that you send my copy of the *COUNTY AGENT & VO-AG TEACHER* magazine to some vo-ag instructor for which the magazine appears to be tailored. I've already spent too much time finding out from various "arm chair experts" where we in Extension should be heading. I suggest you spend a little time analyzing the future of your own publication.

(NAME WITHHELD)
County Agent

Although he didn't request it, we are withholding the above county agent's name. We feel that he deserves the right to speak out in his magazine. Naturally, we are honoring his unusual request, but at the same time we have asked him to consider what may result if he insists on "sticking his head in the sand" and reads only the favorable side of what is going on in his profession. These are crucial times in which we live. Our very God-given rights are at stake. We feel very keenly about the "creeping bureaucracy" to which we referred

in our October issue. We hope that this county agent, as well as those all over the nation, will read "Teamwork is Contagious," elsewhere in this issue, and also the following letter from a midwest county agent, who received a Distinguished Service Award from the National Association of County Agricultural Agents in New York last September.—EDITOR.

THE CASE FOR ANONYMITY

Contrary to what a reader suggested in our August "Speak Up"—that we should not publish anonymous letters "written by those who do not have the courage of their convictions,"—we are presenting another letter this month which is representative of the comments we receive in talking to Extension people these days. Many of these people possess a real fear that their futures will be at stake if they "speak up" against administrative thinking.

As we stated in the July issue, we do not wish to hinder the advancement of anyone who may be in line for promotion—nor do we intend to deliberately incur the wrath of certain administrators. But even more important, we feel, is that we present both sides of this issue concerning the future of Extension work.—EDITOR.

"CREEPING BUREAUCRACY"

We have met on several occasions. We spoke to each other briefly in Florida in 1960 and in New York in 1961.

Your most recent editorial on "Creeping Bureaucracy" may have hit the spot with many field staff extension workers. *Lest we forget, we originated and have been maintained for nearly fifty years by public funds to provide farmers information and service in subject matter pertaining to agriculture. Farmers need more detailed technical information in a wider range of subjects today than when we first came into existence.*

As you say, "straight talking farmers" want us to emphasize agriculture—they need more detailed information and alternatives or they will get it somewhere else.

Your editorial on degrees in Extension Service pointed out clearly why your creeping bureaucracy is coming into being.

More administrators are highly educated; furthermore have had no field experience. Thus they must necessarily develop a different attitude and orate because they never have been as close to people as county agents.

There is a tendency to program down from some point above in administration but let me say this, that any county agent who is foolish enough to go off on a tangent—following a leader blindly over a cliff to extinction—is not serving his people. That is where he builds his program. He is the best filter in this bureaucratic system. What doesn't apply he can forget.

There has been a tendency to apply the pressure to agents in underdeveloped areas—to meet the new federal program requirements; but this is part of a national planned economy program.

We don't think anyone in Washington can take care of the ills of some underdeveloped areas. Fifteen years of experience in this work tells us that people in so-called underdeveloped areas must take care of themselves. No plan can be written that will inspire, motivate or stimulate people to help themselves.

If someone wrote the plan they are assuming they speak for the people in the area. I think people must live something to feel it. The orators and administrators work differently than county agents.

Time may be running out for some areas of Extension, but not agriculture, as long as local people have a voice in the local program. Keep up the good work in your magazine; it may kindle some fires.

(NAME WITHHELD)
County Agent

VOICE FROM AFRICA

Seems like ages since I attended the Audio-Visual Workshop in Chicago during the summer of 1959. Little did I know then that I would be coming to Africa for a spell! I certainly want to thank you for continuing my subscription to *COUNTY AGENT & VO-AG TEACHER* magazine—it really helps me keep in touch with things at home.

All our development work has to be closely supervised and with 32 teaching periods each week, I don't seem to find enough time to do the audio-visual part of the program justice.

Our schoolboys "fear" agriculture as a profession, mainly, I think, because all they have known about agriculture in the past was a fork and jembe subsistence proposition. However, they are just beginning to take to the instruction, and several things have come along and helped generate some enthusiasm toward the program. We have just returned from Nairobi with 16 boys who attended the Royal Agricultural Show—this didn't hurt a bit, and with some other outside activities like this planned for the future, I'm sure we can make the thing a success.

ROBERT H. MAXWELL
Agricultural Science Dept.
Chavakali Secondary School
Margoli, Kenya

WHAT IS YOUR OPINION?

Your article by D. R. Purkey is one of the best I have seen in some time. You will be "shot at" for it but I feel we need a change. I have taught agriculture over 25 years and attended several NVATA Conventions.

CHARLES E. PACKARD
Vo-Ag Teacher
Cheney, Wash.

COUNTY AGENT AND VO-AG TEACHER

Mr. Packard was referring to the article, "10 Ways to Up-date Vo-Ag" which appeared in the August issue. —EDITOR.

LIKED ARTICLE

May we have 30 reprints of Dr. Milo J. Peterson's excellent article, "It's Up to You," from the October issue? We wish to distribute them to the officers of the public school administration and secondary school principals association at a special meeting.

I am certain that this well-written article will aid in promoting a better understanding of the needs of vocational agriculture in Minnesota.

PAUL M. DAY
Pres. Elect MVAIA
Faribault, Minn.

Sorry, Paul, we can only send you a few "tearsheets," but you have our permission to reprint it.—EDITOR.

LIKED ISSUE

I was delighted with the September issue of COUNTY AGENT & VO-AG TEACHER. Your organization went "all out" with it.

I am very pleased that you could attend our annual meeting. I am sorry that I did not have more free time to chat with you. Since first meeting you in Philadelphia in 1952, I have always felt that you were a very sincere friend of county agents in U.S.A. I still feel the same way.

HOWARD H. CAMPBELL
President, NACAA
Mincola, N. Y.

ERROR NOTED

I noted in a recent issue of COUNTY AGENT & VO-AG TEACHER what I thought was a slight error. I looked forward to the following issue to see if it had been corrected. The error I have reference to is the placing of Secretary Ribicoff (by your John Harms and George Peter) in Massachusetts, when actually he was Governor of Connecticut. I just couldn't resist calling this to your attention.

RICHARD C. DOLLOFF
Orono, Me.

We're glad you brought this to our attention. We're sure our readers in Connecticut appreciate this, too!—EDITOR.



WHAT'S COMING UP

December 2-8. National Vocational Agricultural Teachers Association, convention, Kansas City, Mo.

December 11-14. North Central Weed Control Conference, Weed Society of America, St. Louis.

December 12-14. Missouri annual extension service conference, Columbia.

December 13-15. American Society of Agricultural Engineers, winter meeting, The Palmer House, Chicago, Ill.

January 3-5, 1962. Northeastern Weed Control Conference, annual meeting, Hotel New Yorker, New York, N. Y.

January 17-19. Southern Weed Conference, Hotel Patten, Chattanooga, Tenn.

January 31-February 1, 1962. New Hampshire Poultry Health Conference, University of New Hampshire, Durham, N. H.

June 17-20. American Society of Agricultural Engineers, fifty-fifth annual meeting, The Mayflower Hotel, Washington, D. C.

DECEMBER, 1961

You'd think all farm structures would be built of Redwood!



Redwood has a surprising number of unique qualities of particular interest to farmers. For instance, redwood's paint-holding ability is unsurpassed by any other wood, or, if you prefer, it can be left to weather without any treatment whatsoever. And for structures such as this cattle barn and hog house on the farm of Dr. Feuerback, Spragueville, Iowa, redwood's exceptionally high insulation value is another important advantage. In short, farmers find that CRA-Certified Kiln Dried redwood means long-lasting, care-free performance.



Inexpensive grades of redwood heartwood can be used for structures such as cattle feed racks. Even when exposed to the elements year after year, the wood will remain sound. And, the heartwood of redwood provides maximum resistance to termites and fungi.

Maximum resistance to chemicals, minimum shrinkage, high resistance to decay and excellent dimensional stability make the heartwood of redwood the most practical choice for dip tanks, septic tanks and water storage tanks.

CRA

Write Dept. S-5 for your copy...

"20 Ways to Use Redwood on the Farm."

CALIFORNIA REDWOOD ASSOCIATION
576 SACRAMENTO STREET • SAN FRANCISCO

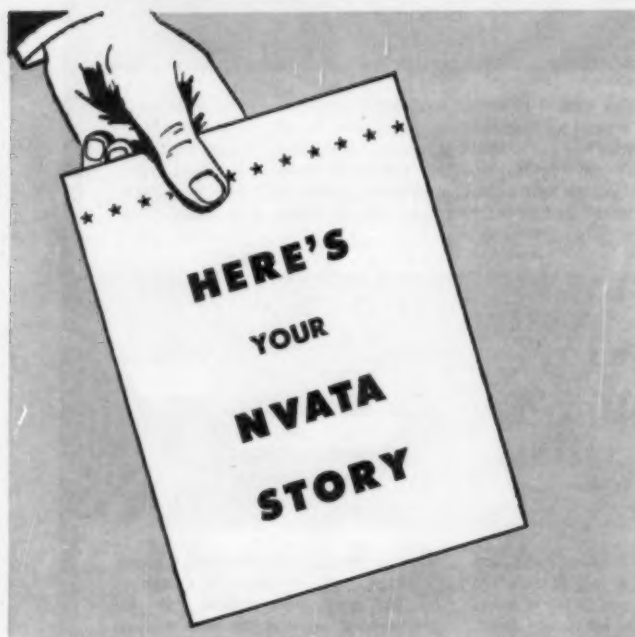
The California Redwood Association coordinates the research, forest management, grading and consumer service activities of these member mills: GEORGIA-PACIFIC CORPORATION WILLITS REDWOOD PRODUCTS CO. • ARCATA REDWOOD COMPANY • SIMPSON TIMBER COMPANY • UNION LUMBER COMPANY • THE PACIFIC LUMBER COMPANY

CRA - TRADEMARKED CERTIFIED KILN DRIED REDWOOD

● vo-ag's in Kansas City

your PROGRAM

...AT THE AVA CONVENTION



ATTENTION: All members NVATA—State officers, supervisors, regional head teacher trainers, members executive committee! John Jones, vo-ag teacher—

Are you listening?

The Big Week is upon us. This means, of course, our portion of the AVA convention, to be held in Kansas City, Mo., November 29 to December 8.

Our general headquarters will be Hotel Muehlbach, with a meal or two at Hotel President. The executive committee will be meeting Wednesday evening, November 29, and again on Thursday and Friday.

However, John, if you aren't on that committee, you will want to check in for the first general session on Saturday, December 2.

Dr. Charles Irvin's speech that day promises to combine humor, inspiration, and information. (We hear that his alias in many parts of the country is "the Merchant of Message").

The reception Sunday afternoon will give your wife a chance to wear her prettiest dress, when you will be introducing her to vo-ag teachers from other educational groups.

Just one of the interesting meetings on Monday will be the panel discussion on "Changes Affecting Agriculture and Agricultural Education," with C. E. Bundy, professor at Iowa State University, as moderator.

On Tuesday morning, John, you can spend time visiting the commercial exhibits, and it will be time well spent, too. It's always nice to try to keep up with the latest developments in this field.

Wednesday's speech by the director of recruiting for the Peace Corps, T. E. Quimby, should prove especially interesting to everyone. This new venture into the international vo-ag program is a real challenge.

The tour of nearby commercial and family operated farms on Wednesday will be by bus. Box lunches will be provided, but please don't forget to get your tickets ahead of time! (You might tell your wife to remind you to stop at the registration desk to pick them up.)

"Planning Program of Agricultural Education to Meet Changing School and Community Needs," is the theme for Thursday's panel discussion. J. M. Campbell, from Richmond, Va., moderates this.

You will notice, John, that the luncheon on Thursday will be at Hotel President—and your wife is included in the invitation, too.

The panel presentation on Thursday afternoon will be moderated by Floyd Johnson, NVATA's president, with "Adapting Vocational Agriculture to Meet the Changes in Farming," as its topic.

Friday morning's panel will consider "Better Communication for Agricultural Education," and Ralph Woodin of Ohio State University will keep the ball rolling at that session.

There will be a summary of the week's program, and then the final business meeting Friday morning will be under the leadership of R. C. S. Sutliff, AVA vice-president for Agricultural Education, with L. J. Phipps, AVA secretary, assisting.

We'll be seeing you in Kansas City, John Jones!

CONVENTION SCHEDULE

Hotel Muehlebach,
Kansas City, Mo.

November 29-December 8, 1961

Wednesday, November 29

7:30 pm
—NVATA Executive Committee

Thursday, November 30

8:30 am - 1:00 pm; 7:30 pm
—NVATA Executive Committee Meeting

Friday, December 1

8:30 am - 1:00 pm; 7:30 pm
—NVATA Executive Committee Meeting

Saturday, December 2

9:15 - 10:45 am
—NVATA First General Session
10:45 am - 12 noon
—NVATA Special Program
Speaker—Dr. Charles Irvin
1:00 - 5:00 pm
—NVATA First Regional Meetings
6:30 pm
—NVATA Presidents Dinner, Courtesy Consumer's Co-operative Association

Sunday, December 3

1:15 - 2:45 pm
—NVATA Second General Session
3:00 - 4:30 pm
—Question and Answer Session
4:30 - 6:00 pm
—Reception—Combined Educational groups

Monday, December 4

8:00 am - 12 noon
—Agricultural Division Committee Meetings
10:00 am - 12 noon
—NVATA Second Regional Meetings
1:30 pm
—Announcements
1:45 pm
—Panel discussion, "Changes Affecting Agriculture and Agricultural Education"
4:00 - 5:30 pm
—Executive Council Meeting
5:30 pm
—Past NAVATA Officers Meeting and Dinner

Tuesday, December 5

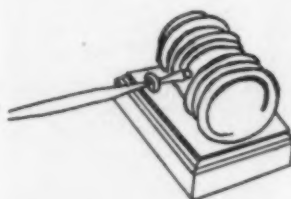
7:00 - 8:45 am
—Breakfast—Hotel President, Courtesy Consumer's Co-operative Association
9:00 am - 12 noon
—Visit Commercial Exhibits
12:45 - 1:45 pm
—Luncheon—Hotel Muehlebach, Courtesy International Harvester Company
2:15 - 3:15 pm
—Combined Agricultural Education Groups
3:30 - 4:30 pm
—Business Meeting
4:30 - 5:30 pm
—Editing—Managing Board, Agricultural Education Magazine

6:00 pm

—Dinner Meeting, Editing-Managing Board, Agricultural Education Magazine

Wednesday, December 6

7:30 - 10:30 am
—State Supervisors Breakfast
—Teacher Trainers Breakfast
7:00 - 9:30 am
—NVATA Breakfast, Courtesy Allis-Chalmers Manufacturing Company
10:00 - 11:45 am
—NVATA Final General Session
—State Supervisors and Teacher Trainers
12:30 - 5:00 pm
—Combined Agricultural Education Groups
—Tour to nearby farms



Thursday, December 7

8:30 - 9:15 am
—"Mobilizing Resources for Educating the Adult"—W. V. Bell
9:15 - 9:45 am
—Discussion
10:00 - 11:15 am
—Panel Presentation, "Planning Program to Meet Changing School and Community Needs"
11:15 - 11:45 am
—Discussion
12:15 - 1:45 pm
—Luncheon (Hotel President), Courtesy the Great Atlantic and Pacific Tea Company
2:15 - 3:15 pm
—Combined Agricultural Education Groups; Panel, "Adapting Vocational Agriculture to Meet Changes in Farming"
3:15 - 4:00 pm
—Discussion

Friday, December 8

8:30 - 10:15 am
—Combined Agricultural Education Groups
8:30 - 9:30 am
—Panel Presentation, "Better Communication for Agricultural Education"
9:30 - 10:15 am
—Discussion
10:30 - 11:15 am
—Summary of Week's Program
11:15 - 12:00 noon
—Final Business Meeting

A Pictorial Series on How to Judge Cattle . . . Sheep . . . Hogs

Listed below are reprints of articles which have appeared in COUNTY AGENT & VO-AG TEACHER and which are available at 5 cents each.

Text accompanying the excellent pictures evaluates the conformation of the animals shown.

Angus heifers
Red poll aged cows
Red poll bulls
Guernsey cows
Jersey cows
Holstein cows
Red polled yearling heifers
Brahman cows
Hereford steers
Polled Hereford heifers

Dorset ewes
Corriedale yearling ewes
Corriedale ewes

Yorkshire gilts
Senior spring Duroc boars
(Class #1)
Senior spring Duroc boars
(Class #2)
Berkshire gilts
Landrace boars
Yorkshire hogs
Duroc market burrows

Use the coupon for easy ordering. Include remittance with order.

Reader Service

COUNTY AGENT & VO-AG TEACHER
Willoughby, Ohio

Please send me the reprints checked above. Remittance of is enclosed. (Reprints are 5 cents each.)

Name
Address
City State

TEAMWORK IS CONTAGIOUS



Four heads better than one. Well, that's what these heads thought after they developed some new ideas for teaching in Vo-Ag in northwestern Michigan. Left to Right: William Hutto, industrial arts teacher, Leonard VanHoven, superintendent, Harbor Springs Public School, Ray Terpening, Vo-Ag teacher, and the author, who is Sixth District Extension Agent.

By JOHN B. HODGE*

In Michigan things are happening! Extension and vo-ag folks have sat down together and developed a bold, new teaching program.

You may not agree with all these ideas, but here is what they came up with.

EXTENSION AND VO-AG joined forces recently to plan a bold new program of teaching in northwestern Michigan schools.

Vocational Agriculture has done a fine job in past years in this area and with this good work came wide public acceptance and a reputation for progress that made other school departments envious. But the big changes in farming in the area are being reflected in vo-ag students and programs.

Enrollments of 30 to 50 students are common. Very few of these students are interested in actual farming or technical agriculture. Too many are taking agriculture because they cannot get the more academic courses.

"Watered down" vocational agricul-

ture is the result. Teachers are struggling with many students who have neither interest nor ability in the subject. An examination that these students can pass is a "breeze" to the boy who is really interested. This is causing some departments to lose the respect of the good students and of the school as a whole.

The instructors often have other classes and study halls as part of their teaching load. Usually it is difficult to get free time allotted for farm visits and administrators are becoming more critical of field trips and contests that take students away from other classes. Some teachers are struggling with "related" occupations but there seems to be much confusion in methods.

These are only a few of the problems I have been hearing from vo-ag men and school administrators for the past several years. However, it was not until I became a district agent in Community Resource Development that I could work on a broad enough basis to help solve the problems that affected the whole area.

The first step was to visit individually with ag teachers, administrators, and board members about the possibility of an area planning workshop that would really get at the heart of the basic problems that vocational agriculture was facing and come up with progressive, far-sighted, new programs that would better meet the needs of the students and make best use of the capabilities of the technically-trained instructors.

SESSION LASTS A WEEK

To be really effective such a session would have to be at least a week long and should involve teachers, administrators, board members, extension agents, farmers, and university people. This was a big order.

Only eight vocational agriculture teachers from four adjacent counties were asked to undertake the workshop. Keeping the group small insured that participants would really "let down their hair," and discuss the real deep-seated problems and philosophies.

From their busy schedules the teachers set aside an entire week starting promptly at 8 am each day and running some nights until 11 pm. Top resource people were picked in each category and they were happy to take part. This was made a credit course to insure adequate written reports that would show individual schools and local people what had been accomplished, and give additional incentive to teachers.

CLARK HEADS STUDY

Prof. Ray Clark, of Michigan State University's agriculture education department, known for his progressive and far-sighted ideas, accepted the responsibility of the course work. We then worked together to set up the outline and were ready early one August morning for the group. From 8 am that Monday morning until the following Friday every minute of the session was crammed with work.

After the first two days some of the teachers were ready to quit. They felt that the group was dealing too much in theory and that these ideas should be left to superintendents. Their ideas soon changed when several superintendents served as resource people. The teachers discovered that if educational leadership was going to be shown in Vo-Ag then it would have to come from

the teachers themselves. Superintendents had all they could do to handle the multitude of other school problems.

At the final session on Friday afternoon superintendents, principals, and board members were invited to join the group for a chicken barbecue and to hear final reports. What these people heard could set new patterns for vocational agriculture in the entire nation. The reports were given by the ag teachers and covered three main ideas.

IDEA NO. 1—Teach agriculture to all students!—Call it "general ag," or "ag science," or some other name but teach this subject to all boys and girls. The mass exodus of millions to "suburbia" has created a host of problems. Most of these millions grew up in urban centers and are poorly prepared to handle even the simple problems of lawns, home gardens, and shrubbery.

What is a 12-12-12 fertilizer? What are insecticides? Fungicides? When are shrubs transplanted? How do egg plants grow? What is killing the tomatoes? These are some of the simple, practical things that many people need to know, but they are not being taught in present school courses.

And who knows when a catastrophic war might make it imperative that survivors know the rudiments of growing their own food? The supermarket might not be there when the bomb shelters open. The ag teachers are saying we should at least expose all our 7th, or 8th, or 9th graders to the wonders of making nature work for us.

IDEA NO. 2—Consolidate interested students!—Cut across grade lines and bring 10th, 11th, and 12th graders together in one class, but let *student interest* be the determining factor. Of course, if there is sufficient enrollment to find enough interested, motivated students in one grade to make a suitable class then this can be continued. However, most departments are not that large.

The 9th grader who will be going into the consolidated class could be steered to biology or some other needed course. Close co-operation with other school departments is a "must" if the student is to be educated for today's world. And principals tell us that scheduling difficulties can be overcome for these classes.

If administration still insists on sending over misfits, they too can be grouped and be given a more general agriculture course with emphasis on surveying the different vocations.

Consolidated classes force the teacher to depart radically from the deadly "unit" approach. He is forced to deal with problems as the students see them. The subject comes alive with interest.

*Mr. Hodge is district extension agent, Community Resource Development, Michigan State University.

IDEA NO. 3—Throw out farm shop! What these ag teachers really said is to combine farm shop with industrial arts to make better use of facilities. Then broaden the industrial arts program to give the students more practical and useful skills, such as mechanics and rough carpentry.

Next, give the ag teacher more time for farm visits, so that he can go out and help the boy adjust his plow or combine or drill on the farm. With fewer real vo-ag students this would result in a greatly improved learning situation.

A crowd of half-interested boys trying to peer over each other to see a boy making adjustments on another boy's plow on a concrete floor has never been a very realistic learning situation. How much better to be on the boy's own farm with his own equipment and his dad watching a plow adjustment that can be demonstrated by immediate trial.

Many farm shops on modern farms are better equipped than school shops. It was felt that an ag teacher might better be teaching the economics of buying and using farm machinery, building layout, and farmstead arrangement while someone else takes care of the simple skills of soldering, rafter cutting, and the like.

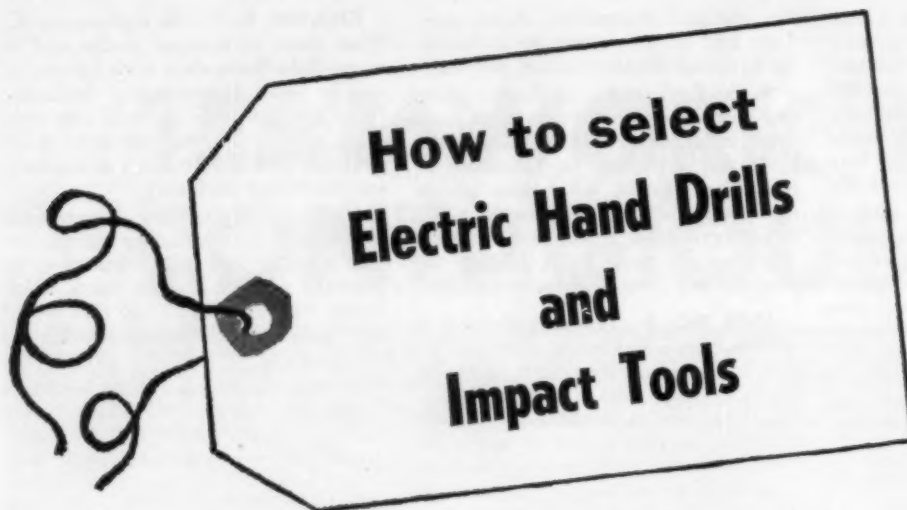
SUGGESTIONS FLOW IN

In addition to developing these three main ideas the vo-ag men touched briefly on many other suggestions that had been studied during the week-long session and are listed as follows: Co-operative transportation for ag students, Junior FFA for 8th grade boys, school land laboratory, 8th grade conferences with incoming students, consolidated areas and schools, more on-the-farm work, greater use of resource people, more adult and young farmer involvement, teacher exchanges, financial arrangements at local banks for project work, area ag work, area approach to farm problems.

Presenting this total mass of information was more than could be handled in one afternoon. In order to develop this more and discuss changes in the local schools the ag teachers immediately arranged further discussion periods with school administrators.

Not all of these ideas can be worked out in one department in one year. Perhaps there will be only one or two. However, the direction has been set. This is tremendously important. It remains now to work out the process of doing the job.

And, as one superintendent put it in a closing remark, "I only wish my other teachers in other departments would come up with this kind of educational leadership." ☆



How to select Electric Hand Drills and Impact Tools

By
W. FORREST BEAR

**Here's some advice if the shop budget
says it's time to buy new tools**

This article is based on the author's six years' experience as a vo-ag instructor, and four years as an instructor in Iowa State University's Agricultural Engineering department.

WHICH AND HOW MANY electric drills and impact tools should the shop teacher buy? One teacher recommends three electric hand drills for a shop class of 20 students and another must have five. Number and types of tools purchased depends on the number of students in the class and the types of projects constructed in the shop. Tool purchase problems are then compounded when the teacher has a limited shop budget.

Demands of the electric drill and impact tool purchaser have forced the tool manufacturer to market both expensive and low cost models. Should the teacher purchase the expensive or the less expensive tools? One model may fit your needs and budget better than another model.

Regardless of needs or budget, you should learn to understand the capabilities and limitations of each electric hand tool before making a selection.

The following discussion of the major items to consider when selecting an electric drill or impact tool will be helpful when preparing the check list to determine the correct tool for your shop and budget.

GENERAL TERMS

Underwriters laboratory listings: Electric hand tools may be recommended for industrial (heavy duty) or

domestic (intermittent-service) use. The industrial rated drills produced by a company are often listed as twice the price of the domestic rated tool sold by the same company. Domestic rated tools in the hands of a skilled shopman will have a long and useful life. However, these tools will not withstand prolonged overload and hard usage. Industrial rated tools are not indestructible, but will withstand more overload. All other factors being equal, the decision of which tool to purchase would depend upon the type of work and quality of supervision in the shop.

Power rating: Electric hand tools have a universal motor; therefore, they can be used on alternating current (A.C.) or direct current (D.C.). Few school shops will have direct current but portable power units may supply it.

The ampere rated load for $\frac{1}{4}$ inch electric drills will be from 1.3 to 3.0 ampere, the $\frac{3}{8}$ inch drill at 2.0 to 5.0 ampere and 3.5 to 6.5 ampere range for the $\frac{1}{2}$ inch drills. Many drills are purchased with the decision based only on amperes at rated load. The purchaser often assumes the $\frac{1}{4}$ inch electric drill with a rated ampere load of 2.5 to be better than the drill with a 2.0 rating. The larger listed amperage does not necessarily indicate a greater power output for an electric motor. Power output of an electric drill motor is determined by the electrical design, the speed reduction unit and types of bearing in the motor.

A better indication of tool quality is the mechanical output of the drill at maximum power. Mechanical output is designated as horsepower or watts. This information is not generally found on

the name plate, but could be secured through the engineering department of each tool company. If the mechanical output is listed as watts, conversion to horsepower is made by dividing by 746 watts per hp.

The following table illustrates the points under discussion when considering $\frac{1}{4}$ inch electric drills.

Rated Amps	Maximum Power (Watts)	
	Electrical Input	Mechanical Output
1.8	230	87
2.0	392	137
2.0	385	180
2.5	440	130
2.5	450	180

As noted above, mechanical output varies between drills with the same rated-load amperes. In fact, one drill with a higher ampere rated-load, 2.0 to 2.5, had the same or even lower, mechanical output. Thus, rated-load amperes should not be used as the only criteria in tool selection.

Power cable: Power cables may be either the two- or three-conductor type. The third wire of the three-conductor cable is for grounding the electric power tool case. This third wire should be continuous to the grounding terminals at the main disconnect box and should not be fused. A properly installed grounding conductor of a three-conductor circuit provides greater safety than can be obtained with the two-conductor circuit.

Length of power cord should not be less than six feet, and generally those

longer than fifteen feet will be cumbersome to carry and store.

Size of tool: Length, width, weight, and balance of all power tools should be considered. Prolonged use of a clumsy tool is tiring and may result in a safety hazard to the operator.

ELECTRIC HAND DRILLS

Before purchasing electric hand drills the shop teacher should also consider specific items such as the rated rpm, bearings, type of chuck, and handle.

Rated rpm: Drill speed is of prime importance when different shop jobs are performed. The rated rpm for $\frac{1}{4}$ inch drills will vary from 1600 to 3000. The $\frac{3}{8}$ inch drill will vary from 650 to 2200, whereas the $\frac{1}{2}$ inch drill might vary from 350 to 900 rpm.

Drills with the high rpm have low torque and are best for jobs such as boring small diameter holes and disc sanders. Drills with low rpm have high torque and are best suited for jobs such as boring large diameter holes in steel and wood, drilling in concrete and masonry, buffing and polishing. The school shop definitely has a need for both the fast and slow rpm drills. Incorrect drill selection for the construction job results in tool abuse and a shorter life.

There are also two-speed drills on the market. These drills usually have the $\frac{3}{8}$ inch chuck. Speed change is accomplished by use of a planetary gear system or by two power take-off spindles. A two- or three-to-one ratio is common; thus the 1000 rpm speed can be increased to 2000 or 3000 rpm. The drill speed and torque can then be changed

to accommodate the job requirements. School shops will generally have a greater need for drills with the slower speeds. However, with the selection of a two-speed drill, the shop worker will have the correct speed for both types of jobs.

Drills are now available with both a forward and reverse speed. Flip the switch to change the direction of travel. This feature will be greatly appreciated when boring holes in wood or porous material.

Bearings: The number of bearings in an electric hand drill will depend on the number of gears involved in the speed reduction from the motor to the drive shaft. Common bearing types include the ball, needle, sleeve, and nylon. The thrust bearing is the most important bearing and in most cases is the ball type.

Needle or ball bearings are desirable in an electric drill. The less expensive hand drills will have a greater number of sleeve bearings and generally are not classified for heavy duty service. There are one or two exceptions to this rule. As in the purchase of any equipment, the reputation of the manufacturer is important.

Drill chuck: Drill purchasers have a choice of several drill chucks. The old stand-by is the geared chuck, and other styles include the hex-keyed and the keyless chuck. The keyless chuck is especially popular on reversible drills or drill presses because of ease of operation, and there is no problem with the misplaced chuck key. Cost could be a factor in selection of the keyless chuck; they are generally twice as expensive as the keyed chuck. The additional expend-

iture of \$5 to \$8 for the keyless chuck, however, would be a minor expense during the life of the drill.

Drill handles: Selection of an electric drill on the basis of the handle style is seldom considered, although it is very important. Common handle styles are the pistol grip and spade grip, plus variations of each style. For greater ease and accuracy in boring holes with less wobbling and bit breakage, select a drill with a handle as nearly in line with the chuck as possible. For drilling in tight spots such as corners, select a drill which has a minimum spindle offset from the outside of the drill case. Spade handles on the $\frac{1}{2}$ inch drill that can be rotated 360° and which also have a removable dead handle and a side handle, providing maximum operator ease for difficult drilling jobs.

The shop teacher would want all of these features on his heavy duty $\frac{1}{2}$ inch portable electric drills. The spade type handle is not as common on the $\frac{1}{4}$ inch drill but should definitely be considered when purchasing new drills.

IMPACT TOOLS

Impact tools or wrenches are no longer a tool to be found exclusively in the factory or garage. The school shop also uses this versatile implement. The impact tool will handle the usual jobs assigned to the electric drill, and in some cases will do a better job. Boring holes in wood, metal and masonry, running nuts, cap screws, driving screws, steel brushing metal, sanding and buffing is a good inventory list for the capabilities of the impact tool.

The secret of success for this tool is the impact mechanism. With a low



This impact tool is an efficient unit, with its one-half inch drive and keyless chuck. Note also the reversible switch on the pistol grip handle.



To make difficult jobs easier, use this one-half inch reversible drill. It has a rotating spade handle, removable dead handle, and side handle.



This 1/2-inch drill has a spade handle, which places the hand nearly in line with the chuck and drill bit, aiding in keeping hands steady.

One of the most universally used drills in any school or farm shop is the 1/4-inch tool, which has a pistol grip handle and keyed chuck.



torque load it operates like an electric drill, but with a high torque load the impact mechanism is activated.

The tool operator is not fatigued because the impact blows striking the drive spindle do not transmit a twist to the tool operator. The danger of motor overload is also reduced, because the impact mechanism allows the motor to run, even though the chuck spindle has stopped.

School shops will be interested in the 1/2 inch drive impact tool. Bearings for the impact tool could be the ball or needle type and either is satisfactory.

Forward and reverse speeds of the motor are the same, and generally range from 1700 to 2200 rpm. The number of impact blows are about the same as the rated rpm at rated load.

Balance and weight of the tool are important to consider when making a selection. Most tools weigh from seven to fifteen pounds and have a pistol grip handle located near the center of the tool. Grasp the tool by the handle and see if it has a tendency to twist in your hand. If so, the balance is poor and would be tiring to operate.

The impact tool price is probably within your school budget, as its cost is usually not much more than the 1/2 inch electric drill. Since the tool is so versatile, the additional cost can be charged-off to many shop jobs.

DRILL AND IMPACT TOOL ACCESSORIES

The speed reducer is necessary on high speed drills when driving screws and running nuts. Direction of rotation can be changed on some models. Straight slotted and phillips screw driver blades are available in addition to the socket attachments.

The right angle and all angle drive attachments make it possible to work

in those odd positions and close corners. Sometimes these attachments are as expensive as the drill itself. They are designed for specialty work, and as such would not generally be needed in the school shop.

Adjustable hole saws make boring large holes in wood and metal an easier task. The more expensive saws can often be resharpened, whereas the low cost models cannot. The school shop would more often use the hole saws in wood-constructed projects.

Vertical stands for the 1/4 inch and 1/2 inch drill provide a drill press that will improve drilling ease and accuracy. These lightweight table model stands were not designed to replace the floor model drill press that is needed in the school shop.

Most of the accessories for the electric drill and impact tool carry a small dollar sign on the price tag. These accessories are not luxury items, but are the essential items needed to harvest the return on the original investment.

Accessories available for cleaning metal include wire brushes, sanding and buffing discs. Special electric hand tools are available for the above jobs; therefore, don't expect the same degree of efficiency by using attachments on an electric drill or impact tool that is not especially designed for the job.

TOOL SELECTION

Before purchasing tools, consideration will be given to the number of students and type of shop jobs to be performed. In order to obtain a better understanding of the tools, prepare a check list of the essential features of each one.

For a school shop class with 20 students, this list is suggested as the minimum number of tools needed to

do a practical and efficient job.

- 1) One 1/2 inch drive impact tool kit that includes screw drivers, socket set, wire brush, set of hole saws, rotary disc for sanding, and a keyless chuck.
- 2) One 1/2 inch electric drill that has a key or keyless chuck, a rotating spade handle, and removable dead handle, the side handle, and a reversing switch.
- 3) One 3/8 inch two-speed electric drill with a spade handle.
- 4) Two 1/4 inch electric drills, keyed chucks; one with pistol grip and one with spade grip.

A speed reducer for driving screws is also desirable, as well as a vertical stand which can be moved around the shop and in odd positions. This is not possible with the floor model drill press.

Wise selection of drills and impact tools for the school shop makes "cents." Beat the budget limit and eliminate the shop tool "Want List" by a careful analysis of tool quality, versatility, capability and price. ☆

SOIL INSECT CONTROL IN CORN

Closeups of insects and damage they cause to help farmers "diagnose" soil insect infestations are presented in a new educational film that shows all of the common soil pests of corn in the mid-west, plus the latest insecticide methods. The film is in color and sound, and runs about 17 minutes.

There are scenes showing application equipment in use, and scenes showing differences in stands, growth, ear development and standability of treated and untreated corn.

The film was produced by Iowa State University, in cooperation with Velsicol Chemical Corp., 330 East Grand Ave., Chicago 11, Ill.

COUNTY AGENT AND VO-AC TEACHER

late research

- *Mechanical monsters no ogres in your fields*
- *Square eggs for square meals for goodness' sake*
- *Carrots may be colored to order in the near future*

Mechanical monsters in the fields grappling at apples, cabbage, grapes, tomatoes, lettuce, cucumber, beets, and tobacco will some day be a common sight at harvesttime. USDA workers at North Carolina State College and at Michigan State University have been working on mechanical harvesters for these crops, with some promising results.

The apple picker has been aptly named the "squirrel," because of its maneuverability. Perhaps the most advanced machine today is the tomato harvester. New varieties of tomatoes have been developed which lend themselves to this type of picking.

The best defense against atomic fallout is to be a member of either the cabbage or cereal family. It seems these can stand the greatest amount of radiation, outranking pine trees and people, who share a common resistance level. So says scientist Dr. A. H. Sparrow, of the Brookhaven National Laboratory, in a recent radioecology report.

Radiation can be made a useful tool in the hands of geneticists, since it speeds up plant mutations. University of Utah's Dr. John D. Spike tells about the development of a barley variety which will grow within the Arctic Circle, and a rust-resistant variety of oats which took only three years to develop, instead of the usual 10 or more.

Wait till the hens hear about this! Latest news from Poultry Science Association at Penn State, reporting on research at various universities and USDA's Western Regional Laboratory, indicated that oiling eggs within half an hour of being laid, resulted in higher interior quality, as well as preventing loss of quality. But that's not all.

Newest shape for eggs is square! How the poultry scientists at North Carolina did it is their secret, but it's a real egg, complete in protein, and low in calories.

Hay! Feed dollars make sense when spent with foresight and careful attention to latest reports on cattle-feeding studies conducted in various state universities. In brief, here are a few items to note.

From University of Maine, Cecil Brown advises that forage fertilization is a highly profitable program. At Virginia Polytechnic Institute it was found that by increasing both concentrates and roughage, more dairy profits were produced. H. A. Cate of University of Illinois says that livestock receiving pelleted feeds gain faster and more economically than stock receiving the same feed in nonpelleted form.

For beef cattle, grain feeding on pasture usually produces cheaper gains than in the feedlot. Best gain in one test at VPI was noted when a fattening ration containing 14 to 15% protein on a dry matter basis was used.

Custom-colored carrots may be in the farm picture in the near future, if bees don't cross up the geneticists by cross-pollinating new varieties in the seed fields. Researchers at University of Wisconsin have made a four-year study of the genetics of carrot coloring, and have established true breeding lines of white, yellow, orange-yellow, and orange.

If this is "dry," excuse us—but it is meant to be. Drying corn during harvesting may be possible in the future if University of Illinois agricultural engineers are successful in perfecting the harvester attachment they

have been working on lately. This experimental burner assembly blasts heated air over high-moisture corn, dropping the moisture content from 30 to 15% in two minutes. Instead of the conventional 180°, temperatures up to 700° are used. However, by cracking the corn, the drying process was also speeded up. Tests will still continue, with feeding tests planned to determine what effects high-temperature drying might have on the feeding value of corn.

Tests on soil compaction at University of Minnesota indicate that the problem is increasing due to the use of larger and heavier tractors.

An experimental plot at the station was plowed at the plow layer with a special tractor wheel which exerted a weight of 5700 pounds per square inch. This extra weight gave compaction to the soil of approximately 10 years of using the common farm tractor. Packing in the bottom of the plow furrow resulted in compaction to a depth of 21 inches.

Forage yields of oats-alfalfa were much higher in the unpacked areas than in the packed areas. Unpacked areas also showed higher corn forage yields but little increase in corn grain yield. However, corn grain on the packed areas grew more slowly and matured later.

Agricultural engineers at South Dakota State College have been making farm machinery news. In the experimental stage, but showing promise, is a pasture furrower, designed to cut sod, make a furrow, then put the sod back over it. Another machine which has been demonstrated is a tractor with a "feeler arm" for automatic steering. Maybe they will call it "tractomatic."

ag leaders audio-visuals



news and views by George F. Johnson

DURING DECEMBER, we receive an unusually large number of letters and phone calls from Santa Claus. He finds himself in a real predicament in selecting just the right slide projector or color slide camera and related equipment to satisfy the multiplicity of requirements in his Merry Christmas business.

Here are a few suggestions we usually make: In slide projectors, consider well the quality of the machine, not just the beauty of the package.

Select a 500-watt projector if the recipient is serious about his or her color slide work. If just a happy hobbyist, perhaps the 300-watt type will do. If the equipment is for personal use only, give an automatic, providing the purse permits. A 5-inch, f/3.5 lens is standard for most projectors. If possible, have an understanding with the source of the purchase, that exchanges or addition of different accessories are possible, since the full use of the projector may not be correctly anticipated.

Selecting a color slide camera may create a long line of difficult decisions for the inexperienced camera buyer.

The first and best advice is always to buy an eveready case with the camera. Acceptable cameras for this type of work vary in price from about \$35 to over \$300. Buy the best the purse will permit.

What makes the difference in price of cameras? These features influence the price: The speed and quality of the lens, the basic mechanism—single lens reflex or view-finder-range-finder type—built-in features such as exposure meters and electric eyes, coupled range finders, and flash units.

The single lens reflex type of camera is well worth considering if a price range of \$100 to \$200 or more is in mind. It is often best to allow for accessories, and permit the recipient to make the final decision later on, such as flash unit, exposure meter, portrait lenses, and filters. Don't overlook 8 mm. movie cameras and projectors for family Christmas gifts, too.

Now a word of advice to the lucky recipient of Christmas photographic gifts such as cameras or projectors.

Keep the instruction book. Read carefully and become familiar with all operations. Put the equipment to work right away.

There is no better time to try out the camera, whether slides or movies, than during the Christmas holiday season. Remember, a photographic gift is usually something of the family, for the family, and by the family, and the experience, no matter how personal, helps us all do a better visual job of extension and vo-ag work.

WANTED: LIVE VISUALS

"Testing, testing, one, two, three."

How many times in the past have you listened to these words and numbers coming over the amplifying system in a large meeting hall?

How many times, too, have you experienced, as a member of the audience, the showing of pictures, the use of a blackboard, the presentation of a flannelboard story, or a paper pad visual talk which you could not easily see?

Has the thought ever occurred to you, as it often has to me, that speakers or program chairmen should be as earnest in testing their visuals as in testing the amplifying system? In many cases it would probably prove better to have LIVE visuals and a dead mike, rather than a live mike and DEAD visuals. Of course, the ideal is to have amplification that carries the voice just right to all sections of the room, and visuals that can be easily seen by the entire audience.

How can we test visuals? For slides, select the picture, tabulation or chart slide that contains the most details of any in the whole sequence. Project it to the maximum size of a well-elevated screen, focus well, turn off all lights and then go to the back row of seats in the hall. How well do you see it? If the test fails, perhaps the audience can be brought closer to the screen, or a better slide can be substituted. If both are impossible, then remember you are not getting through to the back row with this type of picture, so much more explanation will be necessary.

For testing paper pad work, just write the word "Testing" on the first page as you would normally write or print the word in your lecture. Go to the back of the room and check how clearly it comes through. If it fails, try spotlighting or writing in larger, bolder letters.

Compacting the audience may be another solution. The same adjustments apply, with few exceptions, to blackboard and flannelboard work. Remember elevation always helps.

Every meeting place (outside of school classrooms) is a different situation, so it may be even more important in giving an illustrated lecture to know that you have live visuals than to know you have a live mike!

WHAT'S NEW

NEW 16mm PROJECTOR

The Bell & Howell 542 Filmosound Specialist 16mm motion picture projector was introduced at the recent regional meeting of the American Association of School Administrators in Philadelphia.

The Specialist is lightweight, has extremely low cost maintenance and unprecedented brightness and sound quality, its maker reports.

The projector weighs 29 pounds—8½ pounds lighter than previous Bell & Howell Filmosounds. With it, a sharp, bright image can be projected even in a semi-light room. It is capable of extremely long projection distances.

The Webway sign cabinet, complete with 5300 letters and numerals, size ¾" to 2", is now available for sign and show card making. The cut-out



Three heads can be better than one, in hiding low-placed visuals, such as we see here. To prevent neck-craners' ache, try a little testing beforehand, and get the material up where it can be seen easily by everyone.



What will these young farmers expect of us in the new audio-visual age just ahead?

gummed letters and numerals come complete with line-a-time mounting strips and guide-line mounting cards. The total cost for the cabinet and materials is \$29.75 plus shipping cost. The manufacturer is Holes-Webway Company, St. Cloud, Minn.

Color-lift transparency film makes a four-color impression from magazine illustrations into a transparency for overhead projection in about 2 minutes. This is a Thermofax product by Minnesota Mining and Manufacturing Co., 900 Bush St., St. Paul 6, Minn.

Oravivual Co., St. Petersburg 33, Fla., will provide a **High-Low Adapter** for any of its all-purpose easels (purchased after January 15, 1959) for \$18.50. This elevating device enables the user of a paper pad to write at normal height and then elevate the visual for back-seat viewing.

A **Kool-lite 10x10-inch overhead projector** that reportedly can hold transparencies and other material indefinitely without overheating has been announced by Buhl Optical Co., 1009 Beech Ave., Pittsburgh, Pa.

The **AnSCO Regent 35 mm. slide projector** is a new 500-watt automatic type projector selling for under \$80. It can be operated by remote control with a cord costing about \$6.00 extra. A preview projection screen is supplied inside the cover of the projector case. Information can be supplied by local dealers or by AnSCO, Binghamton, N.Y.

The **Minette Compact slide viewer** represents a new concept in hand slide viewing. The viewer gives a depth perception due to the skillful use of four

mirrors. The cost is \$6.75 and the source is Seymours, 350 West 31st St., New York 1, N. Y.

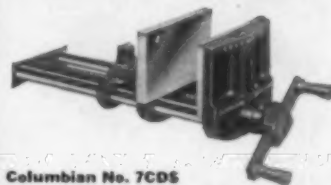
Light blue paper pads, size 27½" x 35½" for easel-pad writing, are now available from Oravivual Company, Box 11150, St. Petersburg, Florida. This color reduces glare as compared to white paper, making it especially suitable for television presentations. Specify B 308 blue paper pads. The cost is \$15.60 per carton of four pads, f.o.b. St. Petersburg.

The new **Vu-graph transparency brief case** is an inexpensive, handy carrying case for the large transparencies used in overhead projection. The cost is \$3.00 and the source is Charles Beseler Company, 219 South 18th Street, East Orange, New Jersey.



John Dooley, right, audio-visual director for Boston's public schools, looks over some of the 93 16mm film projectors, ordered as part of the stepped-up audio-visual program in the schools.

New 3-point mounting! **COLUMBIAN** Woodworkers' Vises



Columbian No. 7CDS

2 slotted brackets and center rest assure firm, tight mounting, easy operation, longer life. Reduce installation time 50%.

Choice of 2 sizes and 2 types of continuous screw mechanisms . . . Rapid Acting or Solid Nut. Plain or Dog Type front jaws. Hardwood, Tubular Steel or Adjustable Steel Handles. Write for Bulletin LL-8216. AA-0005

COLUMBIAN
Vises The Columbian Vise & Mfg. Co.
CLEVELAND 4, OHIO
Sold by leading distributors

When writing
advertisers

Please Mention

**COUNTY AGENT
VO-AG TEACHER**

FOR
YOUR
CONVENIENCE

COUNTY AGENT & VO-AG TEACHER is now being published by MEISTER PUBLISHING CO., Willoughby, Ohio. For prompt response, please address your correspondence, change of address or matters pertaining to your subscription to—

COUNTY AGENT & VO-AG TEACHER

Willoughby, Ohio

county agents, usa

By VIC CAROTHERS



Des Moines County, Iowa, "Soil Sampling" program is discussed by James C. Hodges, county extension director at Burlington and a member of the Des Moines County Soil Fertility Committee. More than 1400 soil samples were collected by farmers in one month and delivered to the state soil testing laboratory through an organized effort headed by Hodges. Normally, the county turns in about 350 samples to the Iowa State University Soil Testing Lab in a year.

GRAPE GROUP EFFECTIVE

In the Finger Lakes region of New York state, there's a good example of dedicated agricultural educators, research men, and fieldmen sharing experiences and knowledge for a common goal.

During the past four years, county agricultural agents from Ontario, Schuyler, Seneca, Steuben, and Yates counties have joined with fieldmen from various commercial wine and juice concerns, research people from Geneva Experiment Station, and Cornell extension specialists to keep each other and producers informed about changing cultural practices which will advance the grape industry in that area.

EXTENSION SERVICES COMBINE

Alamosa, Saguache, and Rio Grande counties in San Luis Valley, Colorado, now have a combined extension service.

Director of Extension Lowell H. Watts said the reorganization was made possible by pooling the extension budgets in the three counties. It is designed to strengthen the agricultural, youth, and home economics extension programs by providing services not possible under previous budget and staff arrangements.

Tentative plans include a specialized staff, supervised by an area extension agent. Potato and livestock production and youth work will receive special emphasis.

UPS COTTON PROFITS

Under the leadership of County Agent Henry Trussell, farmers of Carnegie community in Randolph County, Ga., have united their efforts to increase cotton yields and farm profits, says W. H. Sell, agronomist of the University of Georgia Extension Service.

It all began in the winter of 1957 when farmers from Carnegie were discussing the trouble they had during the 1957 growing season with cotton insects. Agent Trussell guided the thoughts of community members toward a cotton short course in January 1958. About 100 farmers and community members attended the educational program.

Farmers were advised to begin their 1958 crops by taking soil tests of each field to determine lime and fertilizer needs. They were given recommendations on varieties, plant spacing and cultural practices. Emphasis was placed on insect control.

And when harvest was completed in the fall of 1958, Carnegie farmers had averaged more than 700 pounds of lint cotton per acre! These same results have been repeated during 1959 and 1960 with more and more farmers joining in the program.

Farmers and County Agent Trussell estimate that the community cotton program has increased average yield of cotton about one-half bale per acre on more than 1,000 acres.

SCHOOLS FOR MINNOW PRODUCERS

There are unusual extension meetings in Rains County, Texas—special evening schools for minnow producers. County Agricultural Agent Bob Thomas, assisted by Extension Wildlife Specialist Edwin Cooper of Texas A & M College, cover pond construction, selection of breeding stock, stocking rates, feeding, control of diseases and parasites, harvesting, transporting, and marketing.

County agricultural agents from 21 southeast Kansas counties recently spent a half day touring Ottawa Grass Experiment Station. Extension Agronomist E. A. Cleavinger and E. Braum, experiment station superintendent, planned the event. This method of agent training by Cleavinger, a 30-year-tenure agronomist at Kansas State University, was highly acclaimed by the agents.



Interest in the classes has been expressed by many people who want to develop a profitable sideline or a full-time business.

AGENTS DO GRADUATE WORK

Two county agents have been granted fellowships for advanced study by Massachusetts Society for Promoting Agriculture.

William J. Bennett, regional extension specialist in floriculture, Hampden County, will study marketing at University of Massachusetts for one term. During the term Bennett will conduct a field study in the application of marketing principles in the flower industry.

The other recipient is Francis Mentzer, county agent in agriculture in Middlesex County, who will study economics and management. He currently is working with dairy farmers and has completed a number of credit hours while on the job.

This organization arrangement makes it very encouraging for county agents to participate in advanced degree work.

Good speakers are as much in demand now as they were a hundred years ago. Despite all advances in the art of communication there still is something intrinsic and unmatched in the personal approach.—Joseph A. Keller of the Electric Association's Speakers Bureau.

NEW FILING SYSTEM

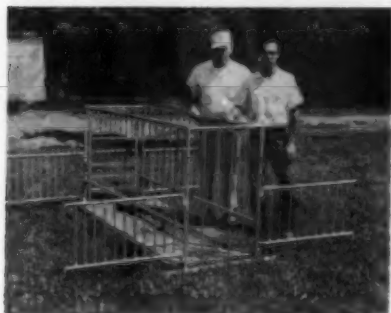
Extension agents and secretaries of several southwestern Pennsylvania counties met recently for a briefing on a new Extension filing system. The Blair county office at Hollidaysburg was one of several pilot counties which set up a model file for Extension materials.

The all-day event outlined the new system which will make uniform all of the files in Pennsylvania's 67 counties.

The educational program and demonstrations were provided under the director of Leland H. Bull, assistant director of extension.

vo-ag news

SOME JAMES F. LINCOLN ARC WELDING FOUNDATION COMPETITION WINNERS



Instructor Lloyd Schultz, left, is shown with prize winner John D. Bryant from Akron, Iowa. John's project was this set of multi-unit farrowing crates.



Wayne Lynne, right, is proud of his winning student, Ray Sessions, Byron, Wyoming, whose project, a utility trailer took the eyes of the judges.



Inspecting an ingenious tree-planter are, left to right, West Plains, Missouri high school superintendent Donald Slater; C. L. Renfro, principal; and Charles Kenslow, who "stood off" for winners Reed and Richard Rumph who had been called up for armed service duty.

IF STUDENTS ASK

Questions regarding **Kodachrome II**, the new Kodachrome film are coming in.

The film has been available since March in limited quantity. The speed is two and a half times as fast as the pre-

vious Kodachrome which will continue to be manufactured.

Kodachrome II slides are sharper and have somewhat less contrast than regular Kodachrome. The shadow areas are softer and dark areas go less dark with under-exposure.

One of the big advantages of the new film is in flash pictures using blue bulbs or the Electronic flash. Greater distance receives satisfactory exposure and the illumination appears to be more even. Likewise much better results can be secured by exposure with available indoor light only.

How about the colors? Reds are more brilliant. Greens are more pleasing, and yellows are less orange. The pastel colors are improved. Because of less contrast many outdoor subjects may appear less brilliant than photographers are accustomed to with the film formerly used.

How do you mail for processing? Use the same mailers as for regular Kodachrome. Kodachrome II is available also in 8 mm and 16 mm movie film as well as 828 and 135 film for slides.

WANTED: VO-AG TEACHERS!

The demand for vo-ag teachers continues to exceed the supply. At least, that is what is reported from Ohio State University. Out of 56 vo-ag graduates this year, all have jobs, with four going on to graduate school. Here is a summary of positions:

Teaching Vo-Ag in Ohio	25
Teaching Vo-Ag in Michigan	2
Teaching other than vo-ag	5
Extension Service	11
Graduate School	4
Military Service	4
Farming	2
Radio Station	1
Farm Bureau	1
Unreported	1

Dr. Ralph E. Bender, chairman, department of agricultural education, says, "There is even a greater need for preparing more men in vo-ag education, if we expect to meet the future demands in teaching, and in the allied fields of education." Graduates are also qualified for positions with commercial organizations, public and private agricultural schools, colleges, and governmental agencies.

This is the situation in Ohio. We would like to hear from leaders in other areas of the country, to see how their supply-and-demand of vo-ag teachers compares with Ohio's.



The swing is to YORKSHIRES

• Litter Size

Long known as the most prolific breed with the ability to raise their litters.

• Feed Conversion

Lead all breeds at Iowa, Ohio, Indiana, California, and South Dakota testing stations.

• Other Factors

Consistently top the market as straight and crossbreeds ... all but 8 days in June at Chicago. Adaptable to confined feeding. Lead many stations in rate of gain. Certified breeding stock available.

For a FREE copy of the YORKSHIRE JOURNAL plus other information write: 1001 South St., Lafayette, Indiana.

AMERICAN YORKSHIRE CLUB

VACCINATE and BE SAFE!



Dependable Protection!

COLORADO brand Serums and Biologicals have a trouble-free record for over a quarter century in controlling livestock diseases. Produced under Government supervision.

VACCINES and SERUMS

for Cattle, Swine, Horses, Sheep, Turkeys

Local Dealers: Nation Wide Distribution
COLORADO SERUM CO.
4950 YORK STREET • DENVER 16, COLO.
SEND NOW FOR FREE CATALOG

ORDER NOW!

1962 Spray Compatibility Chart. Tells at a glance just what chemicals mix safely. Available also, our important Spray Safety Chart. Order both charts ... a \$1.00 value ... only 75¢. Quantity prices on request. Offer good only in U.S.A. and Canada. Coin or money order must accompany each order

County Agent & Vo-Ag Teacher, Willoughby, Ohio

BOSTROM IMPROVED FARM LEVEL



Accurate, Durable and Complete for Terracing, Ditching, Irrigating, Tile Draining, Grading, Turning Angles, Running Lines, etc.

This No. 2 Farm Level has 12-Power Telescopes. It is used and endorsed by Schools, Extension Service and Individual Landowners everywhere.

Anyone can operate a BOSTROM Level by following the simple direction booklet included with each instrument. Our No. 4 Contractors' Level and No. 5 Convertible Level feature 16-Power Telescopes. All Bostrom Levels are sold on the guarantee of satisfaction or money back. WRITE TODAY for literature, prices and name of our distributor near you.

BOSTROM-BRADY MFG. CO.
528 Stonewall St., S.W., Dept. CA Atlanta 3, Ga.

vo-ag news



Instructor Orlando Fedaleo, left, and his student Ken Coric of Santa Barbara, check result of soil fumigation using Vapam®. Treated areas were free of weeds and grass.



Researchers at Texas A & M have worked with U. S. Industrial Chemical Company in developing and testing this new machine, which has been designed to prepare, plant, fertilize, and mulch up to six rows at a time. A wide variety of plants were planted and grown, with excellent results.



New Mexico VATA's newly-elected officers for the 1961-62 year. Seated, left to right, are: William McNeil, vice president; Joe Richardson, president; Otto Dillon, publicity. And standing, left, is C. B. Jessen, who is historian, with secretary Rupert Mansell on the right. New Mexico has 57 vo-ag departments, and 61 instructors.



New president of Association of Teachers of Agriculture of New York, Henry L. McDougal, center, receives gavel from retiring President Carl Widger. Other new officers, left to right, are Jay Manchester, secretary-treasurer; James Rose, vice president; and Leonard Grubel, officer of supplies. This was the 50th anniversary meeting of the association.

Michigan Association of Teachers of Vocational Agriculture officers elected during the 42nd annual conference held at Michigan State University are (seated left to right): Gordon Struble, Temperance, vice president; Walter Bomeli, Bangor, president; Harold Elenbaas, Fawcerville, secretary-treasurer. Standing in back row are (left to right): Howard Bryant, Ashley, president, 10- to 30-year teachers' group and Jack Sanderson, Fremont, president, 0- to 9-year teachers' group.



Officers and directors of the 1961-62 Kansas Vocational-Agricultural Teachers Association are seated, left to right, J. A. Johnson, Buhler, vice president; Virgil Lake, Kingman, president; Merwin Sterns, Manhattan, secretary-treasurer. Standing, left to right, are Truman Deiner, Hillsboro; Don Brock, Highland Park; Bob Severance, Simpson; John Davis, Altoona; Stanley Larson, Marysville; Ira Mann, Colby; and James Grider, Greeley County.

Region IV NVATA officers held a summer meeting at Southern Illinois University. In front row, left to right, are W. S. Weaver, regional vice president, Indiana; Walter Bomeli, Michigan; J. W. Berger, Illinois; Harold Elenbaas, Michigan; Lewis Estes, Kentucky; E. L. McCauley, Indiana. In back row, left to right, are Robert Kelso, Indiana; Kenneth Russell, Kentucky; Luther Rice, Kentucky; J. W. Fraker, Ohio; Robert Denker, Missouri; Jesse Keyser, Illinois; W. Fulbright, Missouri.



booklet-bulletin reviews

Publications listed on this page may be obtained free of charge by sending a post card request to the company or manufacturer named. Be sure to say you saw it in County Agent & Vo-Ag Teacher.

Audio-Visual Aids

TRAINING MACHINE

Problems in training and instructing agricultural personnel can be solved by the use of a new training system which has been developed by Graflex. Named the Audio Graphic system, it can reduce training time by 50%. The machine is portable; it can be set up to operate in any one of three ways: continuous, demand, or timed. You set up your information in the way you want it represented, so it is as accurate and concise as you want. For literature, write Graflex, Inc., Dept. 115, Rochester, 3, N.Y.

REAR PROJECTION

What is rear projection? How and why can it work in a lighted room? What are the advantages of using it? These are some of the questions answered in a semi-technical report, *Rear Projection — an Expanding Technique for Projection Media*, which is offered by H. Wilson Corporation, 546 W. 119th St., Chicago 28, Ill.

Chemicals

NEW ANTIBIOTIC

Gallimycin is Abbott Laboratories' trade name for the antibiotic erythromycin. Its use has proved effective in combating today's trouble-maker diseases of beef cattle, dairy cattle, hogs, and sheep. It is safe to use, since no serious side effects have been observed. Complete scientific literature is given in Bulletin No. 570, which you will receive if you request it from Chemical Marketing Division, Abbot Laboratories, North Chicago, Ill.

Communications

FARM INTERPHONE

Developed exclusively for farm use, the farm interphone system has proved its worth many times over, in time and money saved. Both large and small farms can be made more efficient by installing this modern means of person-to-person instant communication. For complete information write American Telephone and Telegraph Company, Farm Interphone Division, Room 513A, Dept. 5-A, 195 Broadway, New York 7, N.Y.

Crop and Soils

SOIL TESTER

Features and specifications of the new improved RD-B15 soil tester are covered in a new brochure offered by Industrial Instruments, Inc. The booklet also shows a complete kit (RD-300S) containing the soil tester, thermometer, measuring flasks, a dip cell, and

hardwood carrying case. For complete details, write to Industrial Instruments, Inc., 89 Commerce Road, Cedar Grove, N. J.

ON GRAIN MOISTURE

An authoritative, complete study of grain moisture and its effect on profits is now available. The book, *Grain Moisture Management*, covers all aspects of the subject from harvesting through final storage and use. Authors are Prof. F. W. Andrews, of University of Illinois, and Dr. V. W. Davis, of USDA. A single copy may be obtained free from the publisher, Radson Engineering Corp., Macon, Ill.

Livestock & Poultry

TO TREAT SCOURS

Merck & Co., Inc., offers an informative booklet on their new feed additive, Dynafac. The booklet, *Dynafac*, gives facts and figures on the effectiveness of this new product, which is so different, in fact, that it requires a new classification, "chemobiotic." Dynafac works well with all types of grain, supplements, and concentrates, and has worked where other drugs have failed to bring scours under control. For further information, write to Merck Chemical Division, Merck & Co., Inc., Rahway, N. J.

RAISING BRAHMAN CATTLE

The story of the American Brahman breed — its history, the characteristics and traits of the cattle, hybridizing — these are just a few of the topics discussed in literature available from American Brahman Breeders Association. For additional information, write to the association at 4815 Gulf Freeway, Houston, Tex.

TO BE SURE

For safe, dependable vaccines and serums for livestock and poultry, you can recommend Colorado Serum Company. It has been a reliable source of veterinary biologicals for over 25 years, and produces them under government supervision. For catalog, write Colorado Serum Company, 4950 York St., Denver 16, Colo.

Tractors & Equipment

WATER SYSTEMS

Thirst . . . the First Need for Water is the title of a 12-page booklet, published by F. E. Myers & Bro. Co. It reports on the advantages of a private water system, and gives a pump selection chart with a simple questionnaire, so that the farmer can figure out which

Get acquainted with the New Products

on page 22

- Fertilizer Spreader ● Photo Filer
- Cattle Implant ● Handbook
- Rotary Cutter ● New Films

type of pump system he needs. Free copies of the booklet, M1648, are available from Myers dealers, or F. E. Myers & Bro. Co., 400 Orange St., Ashland, Ohio.

NEW CUTTER

Ford's new 84-inch rotary cutter is sized for big jobs, with its 7-foot wide cut. It is made to mow pastures, lawns, cut heavy brush, mow road shoulders, and will clear the weeds from orchards right up to the trees. It is available in mounted, straight-pull and offset-pull version. Information about this new equipment may be obtained from Ford dealers, or Tractor and Implement Division, Ford Motor Company, Birmingham, Mich.

Miscellaneous

ON THE LEVEL

The level which is liked by users for its accuracy and durability is easy to use, and is guaranteed to be satisfactory or your money back is the improved No. 2 Bostrom farm level, with a 12-power telescope. You can find out more about this easy-to-use instrument by writing Bostrom-Brady Mfg. Co., 528 Stonewall St., S. W., Atlanta 3, Ga.

FREE KITS

Facts About Dutch Elm Disease, and *Mosquito Control Data* are fact-filled kits which are offered free by John Bean Division, FMC Corp. The former contains articles on controlling the spread of the disease, chemical spray material mixing data, as well as facts of general interest. The latter includes community case histories, spray methods and results from a six-state area, and a mosquito control-sanitation spraying catalog. For either or both of these kits, write to John Bean Division, FMC Corp., Lansing 4, Mich.

VERSATILE VISE

This vise is a handy piece of equipment for the woodworking shop or farm equipment home repair area. Handles are of either tubular steel or adjustable steel; there are two choices of size and types of continuous screw mechanisms. With two slotted brackets and a center rest, you can be sure of a firm, tight mounting. For bulletin LL 8216, write to Columbian Vise & Mfg. Co., 9092 Bessemer Ave., Cleveland 4, Ohio.

new ideas and products

FERTILIZER SPREADER

No longer need time be lost changing attachments or repairing engine, rollers, belts, chains, or gears. The Ardco Roto-Werl brings you fast, economical, trouble-free service.

This versatile, maintenance free spreader easily adjusts to control the



rate of flow, and distributes materials in precision pattern with no excessive overlapping.

You will want to write to Miss Dorothy G. Hemmerle, Ardco Roto-Werl Spreader, West Point, Pa. for additional facts.

CATTLE IMPLANT

The farmers in your area will want to know about a new stilbestrol pellet, DiBESTrol "C," developed for safe use on cattle being fed a diethylstilbestrol



feed in the feedlot, and also for calves and stockers on range or pasture.

This quick-acting growth stimulant begins working within 24 hours. There is no noticeable tissue residue 90 days after implanting, yet it remains active for an additional 60 days. The cattle continue their rapid rate of gain while awaiting the best market situation, yet are available for sale and slaughter at a moment's notice.

For additional literature, please contact Discan Corp., 3622 Medford St., Los Angeles 63, Calif.

ANHYDROUS NH₃ HANDBOOK

Anhydrous Ammonia Handbook for American Agriculture—containing 100 fact-filled pages and more than 130 illustrations—has been published by the Agricultural Ammonia Institute.

Written in layman's language, the book's topics include The Nitrogen Cycle, Application Equipment and Procedures, Soil and Tissue Testing, and Various Nitrogen Fertilizer Materials.

Vo-ags and extension workers are being offered the book at \$2.25, including mailing. Published price is \$3.50 for others. Address of AAI is 304 Claridge Hotel, Memphis, Tenn.

ACCORDING TO WEBSTER

The idea that fence is one of the modern farmer's production tools (just as much as his tractor, his milking machine or his plow) surprised even Noah Webster, who defined the word "tool" more than a hundred years ago.

"According to Webster" shows how an investment in fence can bring greater profits to any farmer who puts it to modern use. Discussions between an up-to-date farmer and Webster himself, whose appearance is ingeniously contrived, are amusing, instructive, practical and loaded with common sense.

The ten-minute, sound and color film can be borrowed from United States Steel, Pittsburgh Film Center, 528 William Penn Place, Pittsburgh 30, Pa.

A TIME FOR SEARCHING

Eli Lilly and Co. has announced availability of a new 16mm color movie titled "A Time for Searching."

This new 25-minute movie, produced as a public service on behalf of agriculture, emphasizes the necessity of continuing scientific investigation in all phases of agriculture if our rapidly expanding population is to have plenty of wholesome food in the years to come. Viewers visit laboratories, field plots and feedlots where scientific breakthroughs are being engineered.

Distributor of the new film is Modern Talking Picture Service, Inc., 3 East 54th Street, New York City 22.

ROTARY CUTTER

We have all heard of how everything is bigger in Texas. The photograph shows the all-purpose heavy-duty Gyro 84 rotary cutter harvesting Sudex hay,

shown to be 10 to 12 feet high and 1½ inch to 1½ inches in diameter.

Not only in Texas, but all over the country, the farmers will be interested in the Gyro 84 which may also be used as a stalk shredder and is guaranteed to cut brush and trees 4 inches in diameter.

For the additional information you



will want, contact John S. Tanner, Servis Equipment Co., Box 1590, Dallas 21, Texas.

PHOTO FILER

Keep your slides ready for quick reference and use. The Multiplex photo slide filing system provides orderly classification, convenience, and protection against loss or damage. The door



of the cabinet opens down making a shelf on which the panels slide out for easy insertion and removal of slides. Various sizes and models are available to fit your individual needs.

L. C. Long of Multiplex Display Fixture Company, 4301 Warne St., St. Louis 7, Mo., will be glad to send you Slide Cabinet Bulletin LS-158 which gives complete specifications.

COUNTY AGENT AND VO-AG TEACHER

FRED L. RUPP
Product Sales Manager
Galvanized Steel Sheets
Granite City Steel Company



“AG LEADERS SHAPE THE FUTURE OF FARMING”

says Fred L. Rupp, Product Sales Manager, Galvanized Steel Sheets, Granite City Steel Company, Granite City, Illinois, producers of patented Strongbarn galvanized steel roofing and siding.

“County agents, vo-ag teachers and other agricultural leaders provide a great service to agriculture and to our nation. They teach, advise, encourage. They are demanding, practical, visionary. And they are a vital grass roots link in our chain of communication to the farmer.

“Small wonder we select COUNTY AGENT & VO-AG TEACHER to tell how to build better farm buildings with Strongbarn. We regard this publication as a medium of influence, and use its pages to provide ag leaders with information they can use in their contacts with farmers and students.

“Granite City Steel Company believes in the job these men are doing to shape the future of farming. We say a simple and sincere ‘thank you’.”

COUNTY AGENT VO-AG TEACHER

“the magazine for agricultural leaders and advisors”



This material was originally prepared for presentation to a group of horticultural specialists, but we feel that the author's ideas are also pertinent to other agricultural areas. What do you think?

By JOHN A. SCHOENEMANN

THE modern extension specialist must be a capable and effective leader, with overall timely knowledge of the entire agricultural field which he represents.

The so-called "shot-gun" approach to disseminating information seems to me as outdated as a two-cent postcard.

As modern commercial horticulture has evolved from large numbers of diversified producers to larger, more specialized growers, we in Extension must adjust or improve our methods and techniques in keeping with these changes.

We must be responsible for training others to do the farm visiting, while we become professional educators and leaders, as a corps of consultants on the

broad problems within whatever section of the agricultural industry we are designated to serve.

In my opinion, the modern, up-to-date extension specialist's program for commercial horticulture in most cases should feature:

- 1) Fewer general-type meetings.
- 2) Less talk and more fact gathering.
- 3) More emphasis on maintaining technical competence.
- 4) More time spent on statistically analyzable work.
- 5) More educational work with specific groups of growers and industry representatives.
- 6) More emphasis on a "unit" approach, and less on a "piecemeal," in

helping a segment of agriculture with its problems.

We need to clear the underbrush ahead of producers, and spend less time explaining their mistakes, or what they should have done.

We cannot continue to do our business in Extension the same old way, year after year. Our methods must change to fit the changing situation. Extension has pursued the pure "subject matter" approach, characterized by having individual specialists broadcasting information in a particular field among growers, and expecting them to fit the pieces together.

A co-ordinated, or "problem-solving" approach, seems to me to be a more feasible solution.

*the
changing
role of*

THE

This involves not only the co-ordinated efforts of specialists in various departments, but maybe some help from industry representatives, other agencies, and researchers as well.

This teamwork approach enables a horticultural specialist to be a *real* leader, with a broad program aimed at specific goals, rather than "putting out fires" on a day-to-day basis.

CASE HISTORY: POTATOES

Perhaps a case history or two from our files will illustrate what I mean by the "problem approach."

Potato growers in Langlade County in northern Wisconsin work around 12,000 acres of certified seed and table stock potatoes annually. About five years ago they complained because they could not compete favorably with other areas and were not making any money.

The county agent felt a real need to do something for the industry, since over 40% of the county's agricultural income is derived from potatoes.

He invited a select group of growers, all recognized leaders representing large, small, specialized, and diversified growers, as well as other specialists in producing and marketing, to attend a meeting.

It was decided to make a thorough analysis of the potato industry in Langlade County. The survey was later reported in a mimeographed form, which was then presented to a wider audience of growers at a later meeting.

STANDARDS NEEDED

The need for more orderly marketing, a set of standards for potatoes, and assurance to buyers of a continuous supply were some of the requirements recognized by the leaders.

The idea of a group marketing program was then evolved. Another special co-operative study and plan was made at this point, involving specialists in horticulture and marketing. It was a truly co-operative venture, reaching

outside of Extension for help needed to organize a really sound program.

Beginning with the 1958-59 marketing season a grower marketing organization was established, with 27 growers representing over 2500 acres of potatoes, as charter members.

Marketing practices improved in the area, returns to member growers were more favorable, and a new look was brought about in the industry for the area. The group has operated successfully for three seasons.

CASE HISTORY: LETTUCE

A second similar group production and marketing venture was begun in 1959 in one of our muckland areas in central Wisconsin, involving lettuce growers.

Here six producers formed a co-operative, involving the planned production and marketing of 500 acres of head lettuce annually. This involved a \$100,000 central packing house and shipping facility.

Specialists in Horticulture, Agricultural Economics, and agencies in the State Department of Agriculture co-operated in working with this group to analyze their problem and work out a solution.

NEW ORGANIZATION

Tied closely to the group marketing venture in Langlade County, but designed with the entire producing area in mind, was a "Quality Potato Production Demonstration Program."

Here a different grower is selected each season to grow a five-acre field of potatoes in accordance with the latest recommendations of the Extension Service. Headed up by the county agent, the program is planned and carried out with the co-operation of specialists in Horticulture, Plant Pathology, Soils and Entomology.

A complete "10-point package program" is put into practice on a typical grower farm to demonstrate efficient,

profitable production of high quality potatoes. Records are obtained on yield, grade out, table quality, and net economic return in comparison with the program the grower is using on the rest of his farm.

Industry representatives are tied into the program in that they volunteer to furnish various materials used on the demonstrational field.

The co-operative project is featured at a special field day in the summer, and results are compiled in a mimeographed brochure. The results are also used as a basis for an exhibit at the annual Fall Potato Show.

Topics presented at the regular one-day potato school held before the next production season are geared to the practices used and results obtained in these demonstrational fields.

As a result, the efforts of many specialists, agencies and industry are brought to bear on a central problem in a unified, "package" approach, rather than in a "piecemeal" manner.

AG LEADERS' DUTIES

I feel most sincerely that we have a distinct responsibility as horticultural specialists to adjust and to improve ourselves. We must be prepared to meet the changes which are rapidly occurring in our field.

Otherwise, we will likely have little or no opportunity for serving commercial horticulture in the future.

If we do not measure up to this task, I am sure some other sources of educational leadership will be sought out by the industry to do so.

We have a real challenge before us in the years just ahead. We must recognize changes, adjust our programs to them, and continually improve ourselves.

Our objective must be to serve as educational leaders for the horticultural production industry in our respective fields. ☆

**Dr. Schoenemann is a specialist in the Department of Horticulture, University of Wisconsin.*

SPECIALIST

in summing up

Are you a leader or a follower?

HOW WELL do you know what's going on around you? How much do you really *care*?

I just returned from Chicago where I attended a convention. My head is literally "spinning" from what I saw and heard at this meeting! We're witnessing the mightiest revolution this country has known since our forefathers kicked the red coats into the sea. It's the continuing *agricultural* revolution. And, brother, it's dynamic . . . exciting!

Industry is proving once again that the *only way* we'll build a stronger, healthier America is through *new ideas* . . . new products . . . and the *enthusiasm* to go out and *sell* those ideas. Government can't do it. In fact, the only people who want more government help are the defeatists.

There are a lot of defeatists in this country. We have them all around us. Unfortunately, we have them in the educational agencies, too.

This month I want to publish a worthwhile letter on this page which I received from one of the nation's outstanding extension specialists. Here it is:

"Congratulations! And thanks!

"I have just read your editorial 'in summing up' . . . 'Creeping Bureaucracy,' in the October number. I have no doubt but that you will catch plenty of the 'old Harry' for this statement.

"I think that you hit fairly and hard! And I speak from experience in the Extension Service dating back to 1937.

"To support your editorial viewpoint let me quote a recent statement by the present administrator of the Federal Extension Service: 'Extension is **FIRST** the educational arm of the U. S. Department of Agriculture.' Many state people have repeated the phrase.

"To the many in the USDA 'education' means promotion of **BIG SPENDING** and **CONTROL PROGRAMS**. These programs are increasingly being used for **POLITICAL** purposes. The proof of this is that where farm programs once were decided largely along nonparty lines, they are now mainly on **PARTY** lines.

"We will have to fight if we are to **REINSTATE** and keep the Extension Service as a truly educational institution rather than allowing it to become a propaganda agency.

"Many of us in the Extension Service have been negligent in our stand for education vs. propaganda. Others have proven to be opportunists rather than educators. Those who would be educators need and appreciate the support of the agriculturally related press.

"Again, thanks for an important job, well done!"

I'm withholding this agricultural expert's name—just as I've done in a previous issue, and again in

"Speak Up" this month. The easiest way for an ag leader to commit professional suicide these days is to be on the **WRONG SIDE** of the fence. We **KNOW** where we stand with the rank and file of Extension people. We're publishing this material in the hope that you will know what's going on and *care enough to do something about it!*

In talking to a couple of county agents recently, one of them said something that really impressed me.

"No one man in Washington can speak for the Extension Service. Extension is *different in every state*. The only program that's worth a darn is the one that is developed by the **PEOPLE** themselves! You've got to have *local control*."

He added that Extension is being described as something it just isn't when national leaders speak to various groups around the country! Fortunately, in most states, they're trying to do something about the *growing farming problems*. But to listen to the federal administrator and others you get a different impression. They're talking about what **THEY** want it to be—not what the average extension worker and farmer wants it to be.

There's defeatism in Vo-Ag, too. Actually vo-ags and county agents are in the same boat. They'll sink or swim together. But in Vo-Ag—as in Extension—it's the *amount and kind of work* you do that counts. Nothing else! In commenting on this point in Milo Peterson's article in October ("It's Up to You!"), C. C. Scarborough, head of North Carolina State's Ag Ed department, writes:

"I would add that as such emphasis becomes a reality, we may need a **DIFFERENT** kind of teacher. The teacher who is able to lead his boys to winning FFA contests may not be able to lead farmers in solving their farm management problems."

Cayce added that in his state they are trying to promote the idea that if you need one teacher of agriculture, *two* are needed—if anything is to be done for the adults as well as the boys.

Well, these ideas can all be debated. Main thing is that you stand up and be counted about what **YOU** stand for. Complacency represents man at his worst. You are *supposed to be leaders*—not followers.


Editor

COUNTY AGENT AND VO-AG TEACHER

IN A CLASS BY THEMSELVES

... and 68 years of tool know-how put 'em there!

THOR PORTABLE ELECTRIC SPEEDTOOLS



SPEEDSAWS Ideal jig saw for cutting metal, wood or plastic. Safe, powerful for every shop assignment. Cuts true at 45°. Four circular saws available from 6½" to 8".

You'll get more out of your students, they'll get more out of their assignments—when Thor SpeedTools become the backbone of your shop! Shop instructors know Thor SpeedTools are geared to withstand strenuous classroom use, are light in weight but real heavy-weights in efficiency. Choose from a broad selection of portable electric drills, sanders, polishers, grinders, jig and circular saws, priced to your shop budget. Each has UL Industrial Rating and CSA Approval, SpeedWay is a division of Thor Power Tool Company.

THOR SPEEDTOOLS

FAMOUS FOR INDUSTRIAL QUALITY SINCE 1893



ORBITAL SPEEDSANDERS The world's largest seller! 4½" x 5½" sanding area. Sands and polishes 1/10 of by-hand time. Professional 115 volt 60 cycle AC motor. Perfectly safe.



SPEEDGRINDERS Noted for their safety in school shops everywhere. Oversized eye shields. Put them to work on student projects and sharpening other shop tools. Five models to choose from.

SpeedWay Manufacturing Co.
La Grange Park, Illinois
Attn: Sales Dept.
Please send me your free Thor
SpeedTool Catalog

Name _____
School _____
Address _____
City _____
State _____

PURINA SALUTES ... "FARMERS OF TOMORROW"



Lanora Tonn



Valetta Tonn



Some of the awards earned by Valetta and Lanora Tonn are displayed by Lanora.

Sheep pay off with honors and cash for Tonn sisters

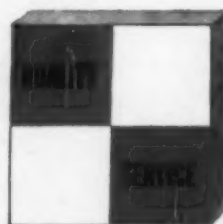
In mid-Kansas, where heavy-headed wheat waves like the sea and reaches almost as far, Valetta and Lanora Tonn grow lambs that are plump and pretty ... and prize winners.

Their home, near Sylvia, holds scores of trophies and ribbons earned at the Reno County Fair, Kansas State Fair, and the Junior National Livestock Show. Valetta, in club work eight years, has shown winners in eight state shows and in three national events, including The American Royal. Lanora, in club activities six years, has exhibited a Champion lamb at the Junior National Livestock Show at Wichita.

Cash, as well as honors, resulted from their work. Income from sheep is helping Valetta pay for her college course, preparing her for teaching. Income from sheep will help Lanora get nurse's training.

Purina salutes Valetta and Lanora Tonn ... and wishes for them futures as successful as their past.

There's a Purina Dealer near you. He's ready to help with your livestock and poultry feeding and management, whether you're producing for market or fitting for the show ring.



FEED PURINA...YOU CAN DEPEND ON THE CHECKERBOARD

